In the claims:

Claims 1-11 (Withdrawn)

12. (currently amended) A method of screening a preventive or therapeutic agent for breast cancer, which comprises measuring and comparing the radioactivities of histone H3 or polypeptide having the N-terminal sequence of histone H3 by transfer of the methyl group, (i) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine wherein the methyl group is radio-labeled and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine wherein the methyl group is radio-labeled and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.

Claims 13-18 (Withdrawn)

19. (previously presented) A method of screening an apoptosis inducer, which comprises measuring and comparing the radioactivities of histone H3 or polypeptide having the N-terminal sequence of histone H3 by transfer of the methyl group, (i) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine wherein the methyl group is radio-labeled and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine wherein the methyl group is radio-labeled and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.

Claims 20-22 (Withdrawn)

23. (currently amended) A method of screening a preventive or therapeutic agent for breast cancer, which comprises measuring and comparing methylated lysine residues (i) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.

24. (previously presented) A method of screening a preventive or therapeutic agent for cancer, which comprises measuring and comparing the purified reaction products, by mass spectrometry, obtained (i) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.

25. (currently amended ) The method of Claims ~~12, 23 and~~ 24, wherein the cancer is colorectal cancer, breast cancer, lung cancer, prostate cancer, esophageal cancer, gastric cancer, liver cancer, biliary tract cancer, spleen cancer, renal cancer, bladder cancer, uterus cancer, ovarian cancer, testicular cancer, thyroid cancer, pancreatic cancer, brain tumor or blood tumor.

26. (previously presented) A method of screening an apoptosis inducer, which comprises measuring and comparing methylated lysine residues (i) in the case where a

protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.

27. (previously presented) A method of screening an apoptosis inducer, which comprises measuring and comparing the purified reaction products, by mass spectrometry, obtained (i) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii) in the case where a protein containing the amino acid sequence of SEQ ID NO: 1 or a salt thereof is reacted with (a) S-adenosyl-L-methionine and (b) histone protein or a polypeptide having the N-terminal sequence of histone H3 in the presence of a test compound.